

26352U sequence listing.ST25.txt
SEQUENCE LISTING

<110> Japan Science and Technology Agency
 <120> Gene participating in the synthesis of brassinosteroid
 <130> 26352U (PS03-311PCT)
 <160> 6
 <170> PatentIn version 3.1
 <210> 1
 <211> 1473
 <212> DNA
 <213> Arabidopsis thaliana
 <400> 1
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 catgttacat cccagagtca cggaccaaag tttccacacg gaagcttggg atggcccgtc 180
 atcgggtgaaa ccatcgagtt cgtctcttct gcttactcag accgtcctga gagtttcatg 240
 gacaagcgtc gtctcatgta tgggagagtg ttttaagtcgc atatttttgg aacggcgacg 300
 atcgtgtcga cggatgctga agtgaacaga gccgttttac agagcgactc gacagctttc 360
 gtgccgtttt acccaaaaac ggtaagggag ctaatgggaa aatcgtcgat acttcttatac 420
 aacgggagtt tacatagacg gttccatgga ttagtcggtt ctttcttaaa gtcgccactt 480
 ctcaaagctc aaatcgttag agacatgcac aagtttttgt cggaatccat ggatctatgg 540
 tccgaggacc aacctgtgct cctccaagac gtctccaaga ctgttgcatc caaagtactt 600
 gccaaggcat tgataagtgt agagaaagga gaagatttag aagagctaaa gagagagttt 660
 gaaaatttca tatcaggact catgtcatta ccaattaact tccctggaac gcaactccat 720
 agatctctcc aagctaagaa gaatatggtg aagcaagttg aaagaatcat agaaggcaaa 780
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 tgccctggtc tcgatttggc tcgtcttgaa acttcagttt ttcttcacca tcttgtcact 1380
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<210> 2

<211> 490

<212> PRT

<213> Arabidopsis thaliana

<400> 2

Met Asp Thr Ser Ser Ser Leu Leu Phe Phe Ser Phe Phe Phe Phe Ile
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Ile Ile Val Ile Phe Asn Lys Ile Asn Gly Leu Arg Ser Ser Pro Ala
20 25 30

Ser Lys Lys Lys Leu Asn Asp His His Val Thr Ser Gln Ser His Gly
35 40 45

Pro Lys Phe Pro His Gly Ser Leu Gly Trp Pro Val Ile Gly Glu Thr
50 55 60

Ile Glu Phe Val Ser Ser Ala Tyr Ser Asp Arg Pro Glu Ser Phe Met
65 70 75 80

Asp Lys Arg Arg Leu Met Tyr Gly Arg Val Phe Lys Ser His Ile Phe
85 90 95

Gly Thr Ala Thr Ile Val Ser Thr Asp Ala Glu Val Asn Arg Ala Val
100 105 110

Leu Gln Ser Asp Ser Thr Ala Phe Val Pro Phe Tyr Pro Lys Thr Val
115 120 125

Arg Glu Leu Met Gly Lys Ser Ser Ile Leu Leu Ile Asn Gly Ser Leu
130 135 140

His Arg Arg Phe His Gly Leu Val Gly Ser Phe Leu Lys Ser Pro Leu
145 150 155 160

Leu Lys Ala Gln Ile Val Arg Asp Met His Lys Phe Leu Ser Glu Ser
165 170 175

Met Asp Leu Trp Ser Glu Asp Gln Pro Val Leu Leu Gln Asp Val Ser
180 185 190

Lys Thr Val Ala Phe Lys Val Leu Ala Lys Ala Leu Ile Ser Val Glu
195 200 205

Lys Gly Glu Asp Leu Glu Glu Leu Lys Arg Glu Phe Glu Asn Phe Ile
210 215 220

Ser Gly Leu Met Ser Leu Pro Ile Asn Phe Pro Gly Thr Gln Leu His
225 230 235 240

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Arg Ser Leu Gln Ala Lys Lys Asn Met Val Lys Gln Val Glu Arg Ile
245 250 255

Ile Glu Gly Lys Ile Arg Lys Thr Lys Asn Lys Glu Glu Asp Asp Val
260 265 270

Ile Ala Lys Asp Val Val Asp Val Leu Leu Lys Asp Ser Ser Glu His
275 280 285

Leu Thr His Asn Leu Ile Ala Asn Asn Met Ile Asp Met Met Ile Pro
290 295 300

Gly His Asp Ser Val Pro Val Leu Ile Thr Leu Ala Val Lys Phe Leu
305 310 315 320

Ser Asp Ser Pro Ala Ala Leu Asn Leu Leu Thr Lys Asn Met Lys Leu
325 330 335

Lys Ser Leu Lys Glu Leu Thr Gly Glu Pro Leu Tyr Trp Asn Asp Tyr
340 345 350

Leu Ser Leu Pro Leu Thr Gln Lys Val Ile Thr Glu Thr Leu Arg Met
355 360 365

Gly Asn Val Ile Ile Gly Val Met Arg Lys Ala Met Lys Asp Val Glu
370 375 380

Ile Lys Gly Tyr Val Ile Pro Lys Gly Trp Cys Phe Leu Ala Tyr Leu
385 390 395 400

Arg Ser Val His Leu Asp Glu Ala Tyr Tyr Glu Ser Pro Tyr Lys Phe
405 410 415

Asn Pro Trp Arg Trp Gln Glu Arg Asp Met Asn Thr Ser Ser Phe Ser
420 425 430

Pro Phe Gly Gly Gly Gln Arg Leu Cys Pro Gly Leu Asp Leu Ala Arg
435 440 445

Leu Glu Thr Ser Val Phe Leu His His Leu Val Thr Arg Phe Arg Trp
450 455 460

Ile Ala Glu Glu Asp Thr Ile Ile Asn Phe Pro Thr Val His Met Lys
465 470 475 480

Asn Lys Leu Pro Ile Trp Ile Lys Arg Ile
485 490

<210> 3
<211> 1934
<212> DNA
<213> Arabidopsis thaliana

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<220>
 <221> misc_feature
 <222> (1748)..(1748)
 <223> n means A, C, G or T.

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 attatttggt cgctggtttc ttggttttga cggccggaat acttctccgt ccatggctct 180
 ggtttcgtct acgaaactcg aaaacgaaag atggagatga agaagaagat aatgaggaga 240
 agaagaaggg aatgattcca aacggaagct taggctggcc ggtgatcgga gaaaccctaa 300
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 tatacgggaa agtgttcaaa acgaacataa tagggacacc aatcataata tcaaccgatg 420
 cagaggtgaa taaagtgggtg ctccaaaacc atgggaacac atttgtccct gcatacccta 480
 aatcaattac ggaactactt ggagaaaact ctattctcag catcaatgga cctcatcaaa 540
 aaaggcttca cacgctcatt ggcgcgttcc tcagatctcc tcacctcaa gaccggatca 600
 ctcgagacat tgaggcctcg gttgttctca ctttggcgtc ttgggctcaa cttccattgg 660
 ttcattgttca ggatgagatc aaaaagatga cgtttgagat attagtaaaa gtgttgatga 720
 gcacatctcc tgggtgaagat atgaacattc tcaaacttga gttcgaagaa ttcattcaaag 780
 gtttgatttg tatcccaatc aaattccctg gcactagact ctacaaatcc ttaaaggcga 840
 aagagagggt aataaagatg gtaaaaaagg ttgtggagga gagacaagtg gcgatgacaa 900
 cgacgtctcc ggcaaatac gtggtggacg tacttctaag agacggtggt gattcagaga 960
 agcaatctca accgtcagat ttcgtcagcg gaaagatcgt agagatgatg ataccggag 1020
 aggaaacaat gccaacggcg atgaccttgg ctgtcaaatt cttagtacg aaccccgctg 1080
 ctctagccaa actcgtggag gagaatatgg agatgaagag gcgtaaattg gaattgggag 1140
 aagaatacaa gtggaccgat tatatgtctc tctcttttac tcaaatgtg ataaacgaaa 1200
 cgcttagaat ggctaacatt attaacgggg tgtggaggaa agctctcaag gatgtagaaa 1260
 ttaaagggtta cttataaccg aaaggatggt gtgtattggc atcattcata tcggttcaca 1320
 tggatgaaga catttatgat aatccctatc aattcgatcc gtggagatgg gacagaatta 1380
 atggatcggc aaacagcagt atttgcttca caccctttgg tgggtggcaa aggctatgtc 1440
 ctggtttaga gctgtcgaag ctcgaaatat ccatctttct tcaccacctt gtaaccgggt 1500
 acagttggac ggctgaggaa gacgagatag tgtcatttcc gactgtgaag atgaagcggg 1560
 ggctcccgat ccgagtggct actgtagatg atagtgttcc tccgatctca cttgaagatc 1620
 attaatagat catttcaaag aacaaaactg tttgtgcaaa gaggaagcag agaagtaaac 1680
 aatgatctt attaacaat agtagagaag agaagcaaac aagattgggtg ggtaagacag 1740
 aaagaacnaa acgtacagct agtgatggct caaagatgag agattctaata tataattttt 1800

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tttgtttgtc atgtcaaatt ataagcgttg gttaggttgc ccctttctct tttatttatc 1860
gtaccaaacg caagttgaga tatgattcca tatatatgga tgatagatat gtatattaat 1920
atatagcggc cggg 1934

<210> 4
<211> 524
<212> PRT
<213> Arabidopsis thaliana
<400> 4

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20 25 30

Leu Thr Ala Gly Ile Leu Leu Arg Pro Trp Leu Trp Phe Arg Leu Arg
35 40 45

Asn Ser Lys Thr Lys Asp Gly Asp Glu Glu Glu Asp Asn Glu Glu Lys
50 55 60

Lys Lys Gly Met Ile Pro Asn Gly Ser Leu Gly Trp Pro Val Ile Gly
65 70 75 80

Glu Thr Leu Asn Phe Ile Ala Cys Gly Tyr Ser Ser Arg Pro Val Thr
85 90 95

Phe Met Asp Lys Arg Lys Ser Leu Tyr Gly Lys Val Phe Lys Thr Asn
100 105 110

Ile Ile Gly Thr Pro Ile Ile Ile Ser Thr Asp Ala Glu Val Asn Lys
115 120 125

Val Val Leu Gln Asn His Gly Asn Thr Phe Val Pro Ala Tyr Pro Lys
130 135 140

Ser Ile Thr Glu Leu Leu Gly Glu Asn Ser Ile Leu Ser Ile Asn Gly
145 150 155 160

Pro His Gln Lys Arg Leu His Thr Leu Ile Gly Ala Phe Leu Arg Ser
165 170 175

Pro His Leu Lys Asp Arg Ile Thr Arg Asp Ile Glu Ala Ser Val Val
180 185 190

Leu Thr Leu Ala Ser Trp Ala Gln Leu Pro Leu Val His Val Gln Asp
195 200 205

Glu Ile Lys Lys Met Thr Phe Glu Ile Leu Val Lys Val Leu Met Ser
210 215 220

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Thr Ser Pro Gly Glu Asp Met Asn Ile Leu Lys Leu Glu Phe Glu Glu
 225 230 235 240
 Phe Ile Lys Gly Leu Ile Cys Ile Pro Ile Lys Phe Pro Gly Thr Arg
 245 250 255
 Leu Tyr Lys Ser Leu Lys Ala Lys Glu Arg Leu Ile Lys Met Val Lys
 260 265 270
 Lys Val Val Glu Glu Arg Gln Val Ala Met Thr Thr Thr Ser Pro Ala
 275 280 285
 Asn Asp Val Val Asp Val Leu Leu Arg Asp Gly Gly Asp Ser Glu Lys
 290 295 300
 Gln Ser Gln Pro Ser Asp Phe Val Ser Gly Lys Ile Val Glu Met Met
 305 310 315 320
 Ile Pro Gly Glu Glu Thr Met Pro Thr Ala Met Thr Leu Ala Val Lys
 325 330 335
 Phe Leu Ser Asp Asn Pro Val Ala Leu Ala Lys Leu Val Glu Glu Asn
 340 345 350
 Met Glu Met Lys Arg Arg Lys Leu Glu Leu Gly Glu Glu Tyr Lys Trp
 355 360 365
 Thr Asp Tyr Met Ser Leu Ser Phe Thr Gln Asn Val Ile Asn Glu Thr
 370 375 380
 Leu Arg Met Ala Asn Ile Ile Asn Gly Val Trp Arg Lys Ala Leu Lys
 385 390 395 400
 Asp Val Glu Ile Lys Gly Tyr Leu Ile Pro Lys Gly Trp Cys Val Leu
 405 410 415
 Ala Ser Phe Ile Ser Val His Met Asp Glu Asp Ile Tyr Asp Asn Pro
 420 425 430
 Tyr Gln Phe Asp Pro Trp Arg Trp Asp Arg Ile Asn Gly Ser Ala Asn
 435 440 445
 Ser Ser Ile Cys Phe Thr Pro Phe Gly Gly Gly Gln Arg Leu Cys Pro
 450 455 460
 Gly Leu Glu Leu Ser Lys Leu Glu Ile Ser Ile Phe Leu His His Leu
 465 470 475 480
 Val Thr Arg Tyr Ser Trp Thr Ala Glu Glu Asp Glu Ile Val Ser Phe
 485 490 495

26352U sequence listing.ST25.txt

Pro Thr Val Lys Met Lys Arg Arg Leu Pro Ile Arg Val Ala Thr Val
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Asp Asp Ser Ala Ser Pro Ile Ser Leu Glu Asp His
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<210> 5
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> PCR amplification primer

<400> 5
gttaaaacac taatggacac 20

<210> 6
<211> 21
<212> DNA
<213> Artificial sequence

<220>
<223> PCR amplification primer

<400> 6
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